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SPRING AND EARLY SUMMER WILD FLOWERS

FIELD MUSEUM OF NATURAL HISTORY

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This is the second of a number of Field Museum leaflets describing some of the more interesting wild flowers of the Chicago region. The first leaflet of this series is entitled "Spring Wild Flowers", and a third illustrates the summer wild flowers.

LIST OF BOTANICAL LEAFLETS ISSUED TO DATE

No. 1.	Figs	$ .10
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No. 6.	The Cannon Ball Tree (in preparation)	.10
No. 7.	Spring Wild Flowers	.25
No. 8.	Spring and Early Summer Wild Flowers	.25
No. 9.	Summer Wild Flowers	.25
No. 10.	Autumn Flowers and Fruits	.25

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FIELD MUSEUM OF NATURAL HISTORY
CHICAGO, U. S. A.

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LEAFLET NUMBER 8

SPRING AND EARLY SUMMER WILD FLOWERS

BLUE FLAG. IRIS

(*Iris versicolor*)

In everything but size the Blue Flag of sunny swamps and open river-lands bears a close resemblance to the well-known garden plant. It has the same sword-shaped erect leaves, and the same type of flowers. Three outer segments of the blossom are violet-blue, variegated toward the base with green, white and yellow. The inner portion of the flower consists of three narrower parts, more erect and often lighter in color.

The *Fleur-de-lis* is the emblem of France. (Iris Family)

SPIDERWORT. TRADESCANTIA
(*Tradescantia* species)

The Virginia Spiderwort shown in the picture, although a native of the eastern states, has escaped from gardens to grow commonly in moist fields and thickets as a native plant. It is a tall smooth herb with very long, narrow and long-pointed leaves that are more or less grooved down the center. The handsome blue blossoms are in clusters at the top of the stems and from day to day open one at a time. Sometimes it is called "Widow's Tears" in allusion to the thin jelly into which the blue flowers seem to dissolve after their brief opening during the morning hours.

The Day-flower is a similar plant. It has straggling stems, shorter leaves, and the buds are inclosed in a heart-shaped sheath or spathe.

The Latin name is in memory of John Tradescant, who was the gardener to Charles the First of England. The Wandering Jew, the common pot plant, is a small-flowered kind of Tradescantia. (Spiderwort Family)

BELLWORT. UVULARIA
(*Uvularia* species)

The lily-like yellowish flowers that hang singly like slender bells identify the Bellwort of rich woods. Its few blossoms are borne near or at the top of the slender stem among the thin, often more or less folded leaves. The leaf-bases encircle the stem which is forked at some distance above the ground. Below the fork it is nearly leafless. (Lily Family)

SOLOMON'S SEAL
(*Polygonatum* species)

The Solomon's Seal of woodlands is well marked by its small greenish-yellow flowers that are borne on delicate drooping stalks at the base of each leaf. The stems, which are leafy only above, are a foot to several feet high. They rise at intervals from creeping, knotted or jointed rootstocks which bear the prominent scars or "seals" of the stalks of former years.

There are two species of Solomon's Seal, the Small or Hairy and the Great or Smooth variety. Besides other differences, the former has some fine hairs on the under leaf-surfaces that are entirely lacking on the foliage of the smooth species. (Lily Family)

BLUE-EYED GRASS
(*Sisyrinchium* species)

There is no prettier sight in a meadow than a patch of Blue-eyed Grass. It is a neat, usually erect stiff-stemmed little plant sometimes only a few inches high, at other times taller than the surrounding grasses. Its leaves and stems are very slender.

The buds are enclosed at the top of the stem in a very narrow, green, sheath-like leaf or spathe, that is open down one side. From this opening, one blossom at a time spreads its blue petals and lasts only for a day. If the sky is overcast, the flower awaits the sun before it opens. Often the spathe terminates in a pointed tip that overtops the flower. (Iris Fam.)

SPRING ORCHIS. SHOWY ORCHIS
(*Orchis spectabilis*)

The several showy violet-purple and white flowers of this native orchid are borne near the top of the low angled stem in a loose and lengthened cluster or raceme. There is a narrow pointed leaf at the base of each flower, but the broad principal leaves are only two, and rise from the ground at the base of the flower-stalk.

The Spring Orchis of rich woods is well-termed "Showy," for its flowers are about an inch long and generally two-colored, the lower part or "lip" of the violet-toned blossom being ordinarily white. (Orchid Family)

POGONIA. SNAKEMOUTH

(*Pogonia ophioglossoides*)

Often hidden deep in a bog or low meadow, but well worth the seeking, the Pogonia raises its solitary fragrant orchid-flower on a slender stem about a foot high. The flower is of a pale rose-color except for the crested and bearded yellow or white lip. There is rarely more than one blossom to a stem. At about the middle of the stalk there is one lance-shaped leaf (sometimes two) and another smaller leaf or bract at the base of the flower. (Orchid Family)

BUTTERCUP. CROWFOOT
(*Ranunculus* species)

There are many species of Buttercups, always recognizable by their waxy, yellow petals arranged to form a cup in the center of which are many stamens. Usually the leaves are deeply parted into wedge-shaped or narrower divisions. The stems may be lax or quite erect.

The species illustrated is the Swamp Buttercup, one of the most showy species, its golden flowers measuring an inch or more in diameter. The large leaves, borne on long stalks, are three-parted and the divisions also are cleft or divided. With age the hollow stems of this species may partially lie on the ground when they root at the joints. The Hispid or Meadow Buttercup is also common; the three leaf-divisions are merely toothed along their edges and its stems are never trailing.

There are many traditions relating to this plant. Children hold a flower under a playmate's chin, a yellow shadow proving a fondness for butter. (Crowfoot Family)

MEADOW RUE

(*Thalictrum* species)

The Meadow Rue of rocky woods, brook margins or wet meadows is distinguished as much for the fern-like delicacy of its fine foliage as for its graceful flowers. These are borne in loose sprays and are abundant but have no brightly colored petals to make them showy. They consist only of drooping or erect clusters of greenish-yellow, white, or purplish filament-like stamens. At their base there may be four to five tiny green or colored sepals.

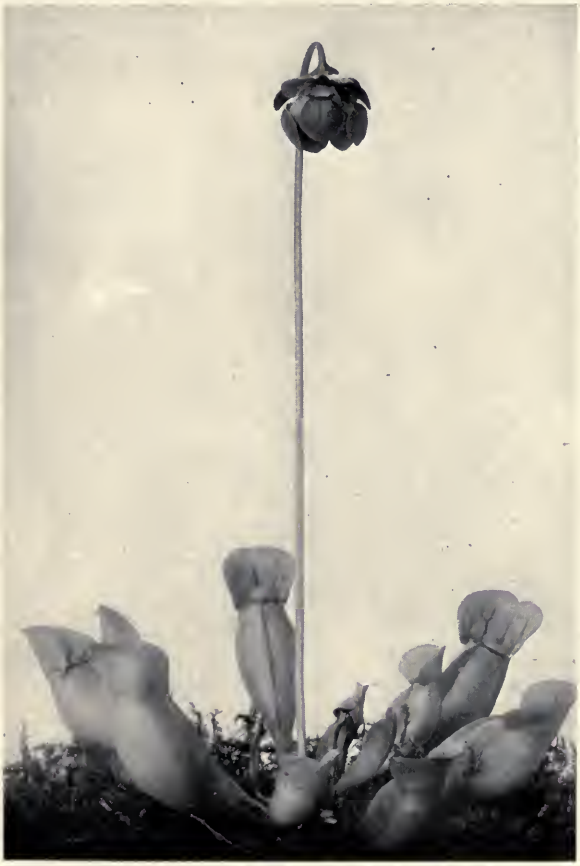
The stems of this perennial are a foot to several feet high and bear only a few, but large, leaves which are made up of many leaflets arranged in threes. Each leaflet is on a tiny stalk of its own. (Crowfoot Family)

Courtesy Frank M. Woodruff, Curator, The Chicago Academy of Sciences.

MITERWORT. BISHOP'S CAP

(Mitella diphylla)

The Bishop's Cap of rich woods has about a dozen tiny bell-shaped white flowers placed at rather distant intervals for several inches along the upper portion of a slender stalk. This flowering-stem bears a single pair of heart-shaped leaves near its middle and just below the first flower. The other leaves, also heart-shaped and with toothed edges, are at the base of the plant which seldom exceeds a foot in height.



PITCHER PLANT. HUNTSMAN'S CUP

(Sarracenia purpurea)

The odd purplish-veined leaves of this peat-bog plant are funnel-shaped pitchers with a rounded arching hood at the opening and a wing-like flange down one side. They are usually partly filled with water. Often they also contain drowned insects which have been unable to crawl out because of the downward-pointed bristles lining the inner surface of the hood.

WILD STRAWBERRY
(Fragaria virginica)

Nearly everyone knows the wild strawberry or recognizes it when first encountered in the open woods and fields, for both in flower and fruit it closely resembles the cultivated plant.

In our common variety the white flowers are borne in small clusters on a stalk, usually erect and shorter than the leaves. Its berry is considered by many to be of finer flavor than that of any domesticated sort. Izaak Walton, the famous fisherman, probably referred to the wild strawberry when he quoted his Dr. Boteler: "Doubtless God could have made a better berry, but doubtless God never did." (Rose Fam.)

Photograph by C. F. Millspaugh.

CRAB APPLE.

WILD ROSE
(*Rosa* species)

The wild rose, native to all temperate regions, has been cultivated since time immemorial and from it have been developed the innumerable garden kinds. Several states, including Iowa, have adopted the wild rose as the state flower. There are many native species.

The Smooth or Meadow Rose that frequents moist rocky places is a low (2-4 ft.) bush with few or no prickles on the stems. After the petals fall the green sepals stand erect on the top of the "haw" or "hip".

The Swamp Rose of wet places is usually a taller shrub with stout recurved spines. The sepals spread and fall off long before the fruit develops.

Another common species is the Pasture Rose of dry or rocky places. Its leaves are more coarsely toothed along the edges than those of the Swamp Rose and the spines are usually more slender and less strongly curved. (Rose Family)

HAWTHORNE. HAW

(*Crataegus* species)

The usually very thorny branches of this common shrub or small tree are characteristic. Sometimes the spines are nearly as sharp as needles. It is handsome when covered in the spring by the clusters of white flowers, small but rose-like in form, and often produced in such abundance that they seem to whiten the bush. Each blossom is composed of five roundish petals surrounding five to many stamens. The leaves are more or less toothed or lobed, or sometimes, as in a commonly cultivated species, cleft.

The Hawthorne is a relative of the Crab Apple. The red or yellow (rarely black) fruits are like miniature apples. They have the same "blossom-end" with the dry sepals attached. The fleshy apple-like pulp enclosing the seeds is often eaten by children. (Rose Family)

LUPINE. SUN-DIAL

(Lupinus perennis)

The Lupine is known as much for the color it gives to open sandy slopes as for the beauty of the individual plants. It is a perennial herb, a foot or two high, with several leafy stems each of which terminates in a long wand or raceme of showy but rather small pea-shaped flowers. The leaves are divided into 7-10 parts which spread from a common center like the spokes of a wheel.

A Lupine, the "Bluebonnet" is the state flower of Texas. (Pea Family)

Photograph by C. F. Millspaugh.

LUPINES.

POLYGALA. MILKWORT

(*Polygala* species)

The Field or Purple Milkwort has rose-purple (or green) flowers in compact clover-like heads.

The best known species of Polygala is called Senega Snakeroot. It is a perennial of rocky soils with small white pea-like flowers forming a "spike." The hard knotty roots send up a cluster of stems about a foot high, rather densely clothed with lance-shaped rough-margined leaves.

The Fringed Milkwort, or the "Flowering Wintergreen" is quite different. Its large pea-like flowers occur singly in the axils of the clustered upper leaves. (Milkwort Family)

Courtesy Frank M. Woodruff, Curator, The Chicago Academy of Sciences.

CEANOTHUS. NEW JERSEY TEA
(*Ceanothus* species)

This low (1-3 ft.) shrub of sandy or rocky slopes bears a profusion of tiny white flowers in pretty clusters at the tips of the new branchlets. The leaves of an eastern species are said to have been used for tea during the American Revolution.

A number of kinds of Ceanothus are ornamental shrubs. (Buckthorn Family)

GOLDEN ALEXANDERS. EARLY MEADOW PARSNIP

(Zizia aurea)

A weedy but showy plant of meadows and swamps, this perennial herb is readily recognized by its small golden-yellow flowers. These are borne in clusters at the tips of short stalks which radiate from the top of the stem like the ribs of an umbrella. The leaves are much divided into many roundish, toothed and long-pointed leaflets; the smooth stems are a foot high or more. (Parsley Family)

SPOTTED WINTERGREEN and PIPSISSEWA
(*Chimaphila* species)

Among the plants that grow in dry woods none are more easily known than the Spotted Wintergreen and Pipsissewa. They are distinctive because of their thick shining leaves arranged in irregular circles on the low stem. The disk-like flowers are near the top of the flower-stalk, which rises a short distance above the leaves.

The leaves of the Spotted Wintergreen have light-colored markings on their upper surfaces; the flowers are white. The Pipsissewa, or Prince's Pine, as it is also called, has pink flowers and green leaves.

The flavor Wintergreen is derived from a related plant. (Heath Family)

Courtesy Frank M. Woodruff, Curator, The Chicago Academy of Sciences.

INDIAN PIPE. CANCER-ROOT
(*Orobanche* species)

This plant has no green leaves. Its slender white or brownish flowering stalks rise from a scaly, more or less subterranean stem. The similarly colored tube- or bell-like flowers are five-lobed at the flaring open end.

The Indian Pipe is a root-parasite, i.e. it is a plant that lives on others by obtaining its nourishment directly from their roots. It, therefore, does not require leaves for the manufacture of its own food. (Broomrape Family)

PENTSTEMON. SMOOTH BEARD TONGUE
(Pentstemon laevigatus)

A relative of the Snapdragon and the Foxglove of gardens, the Pentstemon also has tubular flowers, flaring or dilated at the throat and somewhat two-lipped at the opening. There are a number of species, all perennials with opposite leaves.

The Smooth Beard Tongue of fields and thickets has rather narrow, smooth leaves, broadened at the base; the "tongue", i.e. the sterile filament contained within the white or purplish flower, is only slightly bearded. (Figwort Family)

WOOD BETONY. LOUSEWORT

(Pedicularis canadensis)

No other plant of dryish woods and thickets can be mistaken for the Wood Betony. It is readily distinguished by its head-like clusters of brownish-yellow two-lipped flowers that terminate the hairy, leafy stems and by its narrow, deeply scalloped or lobed leaves. Usually several stems, a foot high, more or less, rise together from the perennial root. The upper and arching part of the flower curves over the lower and spreading "lip." (Figwort Family)

Courtesy Frank M. Woodruff, Curator, The Chicago Academy of Sciences.

INDIAN PAINT BRUSH. PAINTED CUP
(*Castilleja* species)

Some of the leaves of this slender herb are crowded together at the top of the stem and colored brightly with red or yellow so that they form a "painted cup", or suggest a brush that has been dipped in a paint-pot. The flowers are comparatively inconspicuous slender tubes, with two lips and are more or less hidden among these gayly colored leaves.

The Indian Paint Brush is usually a plant of open places. There are many species, all of which are showy. The Narrow-leaved Paint Brush is the state flower of Wyoming. (Figwort Family)

PARTRIDGE BERRY

(Mitchella repens)

This is a smooth evergreen herb that creeps about the bases of trees, especially at the foot of pines and other conifers of dry woods. Its shining roundish, dark green leaves are often marked with white lines. Its white fragrant waxy flowers, borne in pairs, are often tinged with purple; its edible but nearly tasteless berries are scarlet. Altogether, it is an attractive little plant usually bearing in the spring bright fruits that have persisted over winter and dainty tubular flowers with densely bearded lobes. (Coffee Fam.)

VIBURNUM. ARROW-WOOD
(*Viburnum* species)

The Viburnums are upright shrubs with showy flat-topped clusters of small white or rarely pinkish flowers and usually roundish leaves. In some Viburnums the flowers around the edges of the clusters are enlarged and produce no fruit. The Snowball Bush is a "freak" species of cultivation, all of its flowers being sterile and of large size.

The Maple-leaved Arrow-wood or Dockmackie of rocky woods is pictured. (Honey-Suckle Family)

GOLDEN RAGWORT. SENECIO
(Senecio aureus)

The bright yellow daisy-like flowers of the Senecio are in a loose or open rather flat-topped cluster at the top of stems which have most of their leaves crowded together near the ground. These lower and roundish leaves are borne on long slender stalks; the few upper and slender leaves are sessile on the flowering stems.

Another name for this plant, "Swamp Squawk Weed" indicates its preference for wet places such as low meadows and thickets. The flowers are really flower-heads, composed of many tiny flowers, as is the case of the White Daisy and other members of the Composite or Sun Flower Family.

WHITE DAISY. OX-EYE DAISY
(Chrysanthemum Leucanthemum)

Daisies belong to the Composite or Sun Flower Family, a group of plants characterized by the familiar flower-heads that are composed of *rays,* often brightly colored, arranged in a circle around the numerous and tiny *disk-flowers.*

The White Daisy is a smooth, erect plant of fields and meadows. Its leaves are toothed or lobed and taper from a somewhat egg-shaped tip to a very slender stalk-like base.

This plant, although a native of Europe, now grows in the United States. (Daisy Family)

Courtesy Frank M. Woodruff, Curator, The Chicago Academy of Sciences.

COREOPSIS. TICKSEED

(Coreopsis lanceolata)

An herb with 1-2 ft. stems that branch only near the ground and terminate in showy yellow flower-heads, the Coreopsis makes a fine "cut-flower". Indeed it is often cultivated for this purpose particularly as it grows abundantly with little care. The rays or "petals" of the Coreopsis are toothed at their tips; the stem leaves are few, much longer than broad and narrowed toward the stalk-like base. (Daisy Fam.)

This is the second of a number of Field Museum leaflets illustrating some of the more common or interesting wild flowers of the Chicago region. The first leaflet of this series is entitled "Spring Wild Flowers" and a third, dealing with summer flowers is in preparation.

J. FRANCIS MACBRIDE.

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